PCCSL408 -DBMS LAB CYCLE

CYCLE 1

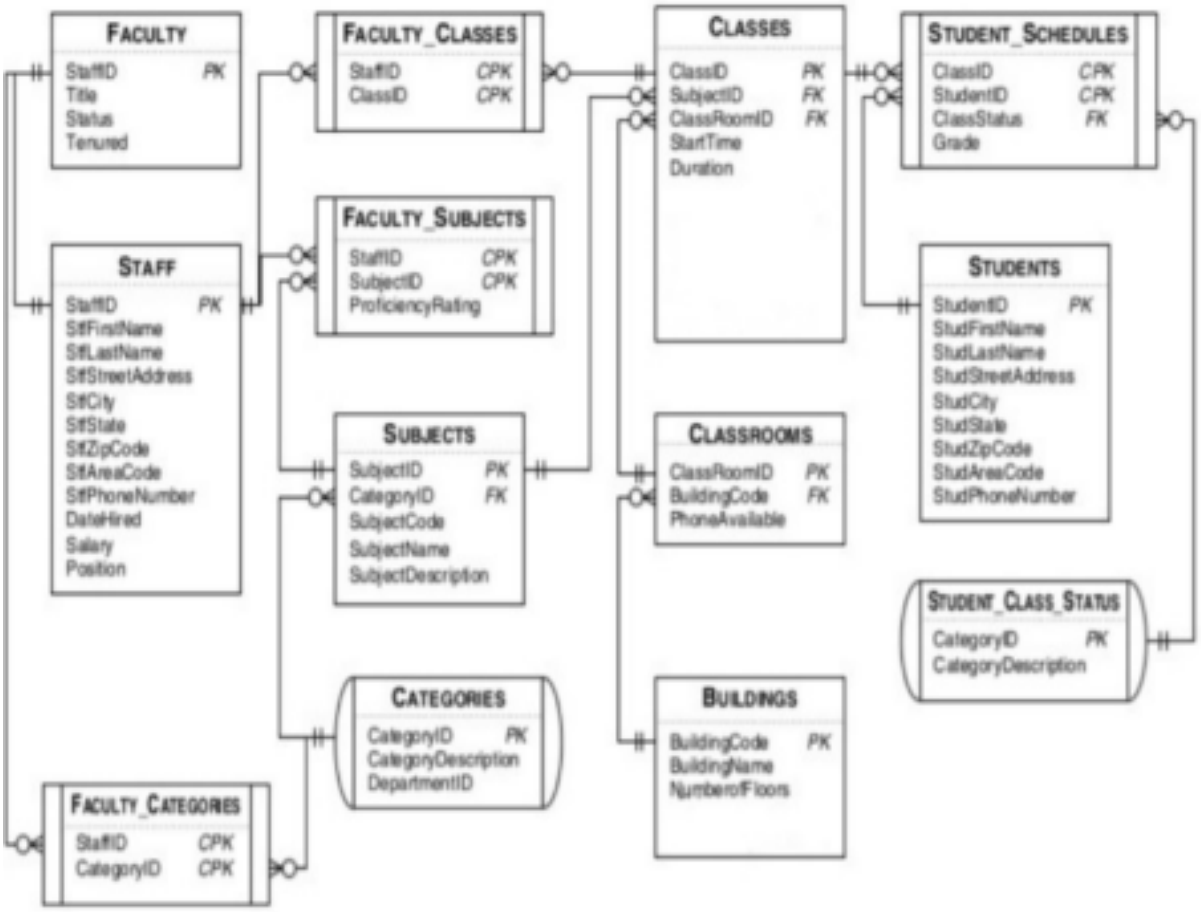
1.1 SCHEMA
1.2 Question 1: Design the ER diagram from the given Schema

1.3 Question 2: Create the database with proper tables, columns, column types and constraints

1.4 Question 3(a): Create and execute alter table command to rename column ‘DateHired’ from Staff table to ‘JoiningDate’

1.5 Question 3(b): Create and execute alter table command to remove the column ‘SubjectDescription’ from Subjects table

1.1 SCHEMA



CYCLE 2

2.1 Question 1: Insert data in the created database

2.2 Question 2: Display the list of faculties who has more than 5 year tenure period

2.3 Question 3: Calculate the remaining tenure period from the current date .

2.4 Question 4: Display the list of staff who have salary greater than 10000 and less than 50000 .

2.5 Question 5: Count the no: of positions in the staff relation .

2.6 Question 6: Count the no: of staff from a particular area code

CYCLE 3

3.1 Question 1: Display the count of teachers teaching either two or three different subjects

3.2 Question 2: Display the maximum of average salary from Staff table based on their positions .

3.3 Question 3: Display the minimum grade of students for each subject from each class

3.4 Question 4: Display subject name which contains character ‘a’

3.5 Question 5: Display the name of students having mobile no starting with ‘97’

3.6 Question 6: Retrieve Class ID and maximum duration available in Classes where maximum duration is less than 2 hours

3.7 Question 7:Display the list of students based on Student ID in ascending order and group by Subject Name

3.8 Question 8 : Display position and average salary of staff belonging to state “Texas” or “New York” where salary is more than 10000 and average salary is less than 25000

CYCLE 4

4.1 Question 1(a): Revoke insert privilege for a user on table Students and check whether you are able to insert a row into the table .

4.2 Question 1(b): Grant the permission to the user for inserting values in to students table and check whether insertion is possible or not

4.3 Question 2(a): Start a new transaction and insert a row into the Staff table. Commit the transaction and display the changes to the table

4.4 Question 2(b): Start a new transaction and insert a row into the Staff table.Undo the transaction and display the changes to the table .

4.5 Question 3: Display the staffid and title for Faculty along with staffid and position for Staff in a single table. Indicate the source of the row in the result by adding an additional column EMPLOYEE with possible values as ‘F’ (Faculties) and ‘S’ (Staff). Display all rows (Using UNION ALL)

4.6 Question 4: Find the pass percentage of a particular subject (using grade)

4.7 Question 5: Display the number of students in each classroom in a particular building using JOINS .

4.8 Question 6: Display the list of students and staff who have the same zip code .

4.9 Question 7: Display the list of faculty who engage the same subject (for any particular subject name) .

CYCLE 5

5.1 Question 1: Create a view from faculty, staff and student relation to display faculty name, classid, subject name based on schedule given .

5.2 Question 2: Use assert statement to check whether Classroom table has at least 1 data

5.3 Question 3(a): Write a PL/SQL block using control structures to display the list of faculties who have been hired between two dates .

5.4 Question 3(b): Write a PL/SQL block using CASE statement to satisfy the following conditions accepting Staff ID as input:

i. Case 1: if salary < 5000, give 50% increment
ii. Case 2: if salary between 5000 and 10000, give 10% increment
iii. Case 3: if salary > 10000, display a message ‘No Increment’

5.5 Question 3(c): Write a PL/SQL block to read the Faculty table row by row using WHILE loop and display the last name of the faculty .

CYCLE 6

6.1 TRIGGERS

6.1.1 Question 1: Create a trigger such that before a row is deleted from Student_Schedules table, it is inserted into another table

6.1.2 Question 2: Create a trigger on Students table in which it stops deletion and updation on Sundays and allows insertion only on Fridays

6.1.3 Question 3: Write a trigger on the Staff table such that an update is not possible if the new salary is greater than the old salary .

6.2 CURSORS

6.2.1 Question 1: Write a PL/SQL block to display the details of Staff living in a particular city .

6.2.2 Question 2: Using parameterized cursors list the name of staff who work in the same department in which ‘xyz’ works

6.2.3 Question 3: Write a PL/SQL block to display Staff_ID and salary of two highest paid staff using cursors .